

RAUNDS
URBAN DISTRICT COUNCIL.

ANNUAL REPORT

OF THE

Medical Officer of Health,

W. MACKENZIE,

Fellow of the Incorporated Society of Medical Officers of Health,

Fellow of the Royal Institute of Public Health, &c.

1906.

RAUNDS :

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TO THE RAUNDS URBAN DISTRICT COUNCIL.

RAUNDS,

FEBRUARY, 1907.

GENTLEMEN,

I have pleasure in laying before you my Annual Report as Medical Officer of Health for Raunds District.

The number of inhabited houses is 833, and the population remains the same as last year, namely 4381.

The number of Births registered during the year was 103, an increase of two over that of last year, so that the birth rate was 23.5 per thousand—a very low rate. There were 56 males and 47 females.

The number of Deaths registered from all causes and at all ages was 42: of these 23 were males and 19 females. The death rate was therefore 9.58 per thousand of the estimated population. This is the lowest rate ever recorded here, with the exception of last year, when it was rather lower, namely 8.2, so that both birth and death rates are very low.

Classified according to age—

8	died	under	1	year	of	age
5	died	between	1	and	5	years of age
5	„	„	5	„	15	„
2	„	„	15	„	25	„
13	„	„	25	„	65	„
9	died	over	65	years	of	age.

Only one death occurred through notifiable infectious diseases, namely Diphtheria. I may mention that only one death was caused by infectious disease in 1905.

Three Coroner's Inquests were held during the year—one on the body of a child who died from Pneumonia, and one also on a child who died from accidental scalding, the third was on the body of a man who committed suicide by drowning.

The classified causes of death are as follows:—Whooping Cough 1, Diphtheria 1, Croup 1, Pulmonary Phthisis 4, Other Tubercular Diseases 4, Cancer 2, Bronchitis 8, Pneumonia 1, Cirrhosis of the Liver 2, Premature Birth 4, Heart Diseases 4, Accident 1, Suicide 1; all other causes 8, which were—Locomotor Ataxia 1, Diabetes 1, Old Age 3, Cerebral Hæmorrhage 3, Cerebral Effusion 1.

The deaths from Pulmonary Phthisis were 4 as against 2 in 1905, and from other Tubercular Diseases 4, three of which were young children ; other pulmonary diseases caused 9 deaths, 8 of which were from Bronchitis, principally among young children, and one of Pneumonia, also in the case of a child.

The number of children who died under the age of one year was 8, which is a slight improvement upon last year, when the number was 10 ; this gives an Infantile Death Rate of 77.6 per 1000 births registered, the rate in 1905 being 99.01. This is the lowest Infantile Death Rate since 1898 with the exception of 1901 when it was as low as 59.32 per 1000. This rate is low compared with other places but still much higher than it ought to be. The causes were Premature Birth 4, Bronchitis 3, Tubercular Disease 1.

NOTIFIABLE INFECTIOUS DISEASES—

The number of cases notified during the year was 13, the number in 1905 being 16. Scarlet Fever accounted for 7 cases and these were scattered over the whole year at intervals, each case being well isolated so that after a thorough disinfection there was never much danger of an epidemic, and no deaths occurred from it. Five cases of Enteric Fever occurred in one house, almost the whole family being down, the house being affected for a period of nearly three months. Some of the cases were of a very severe type but no deaths occurred. The house was thoroughly isolated during the whole period and thoroughly disinfected afterwards, so that I am glad to say there was not another case in the District during the year. There is very little doubt that the first case was imported by the father of the family, who had been away from home and undoubtedly returned with the infection, the children becoming infected from him. The primary cause of the infection was never discovered. The only other case in the District was one of Diphtheria, of a most virulent type, from which the child died : the case was a sporadic one.

I may now remind you that the Isolation Hospital, which is of wood and iron contains 8 beds in two wards of 4 beds each. Each ward measures 20ft. by 20ft., the nurse's room is 10ft. by 10ft., and the hall 10ft by 10ft. The outside is of iron and the inside lining of wood, all the woodwork is varnished ; verandah with concrete floor and brick foundation. The floor is raised 18 inches from the ground, well ventilated underneath, and cemented all over the site to prevent dampness. The wards are heated by slow combustion stoves, and ventilators are placed on the roof. The whole place is lighted by windows on either side. The site is a good one, 210 feet above sea level, on ground sloping to the westward. The field is a mile from Raunds and nearly half-a-mile

from the nearest house, and 400 yards from the road. It contains 16 acres of ground and is surrounded by a very strong hedge 15 feet in height. The land is held on lease with the option of purchase.

House accommodation is very good in Raunds and taken altogether the houses are kept very clean.

The Brook which has caused so much trouble in former years, is still open in many places, and probably must remain so. As formerly in some parts it has been far from clean during the summer months, and more especially at that part near the house infected with Enteric Fever, and again further up the stream. It requires a thorough scraping out regularly at intervals during the summer and early Autumn.

The Scavenging of the town seems to be well carried out by your own men, and as far as I can see there is nothing to complain of concerning that work. Many pail closets are still in existence and must necessarily remain so until we are in possession of our New Water Supply. More than one half of the town is supplied already with water closets, and we hope to see every house in the district so supplied within a very reasonable time now. Periodical inspections of Slaughter Houses have been made by the Sanitary Inspector during the year, and everything seems to be carried on according to the Regulations. The Daries and Cowsheds in the District have been inspected also by Mr. Yorke, who reports everything clean and satisfactory, and I consider with one or two exceptions the District is well supplied with milk of good quality.

There are no Underground Bakehouses in the District and the existing Bakehouses are kept very clean and the work conducted under good sanitary conditions in every Bakehouse in the place.

House refuse, &c., is removed once a week and sometimes oftener by the scavengers, using a modern covered cart, and so far as I can see it is done in a clean and satisfactory manner.

The Factories, Workshops and Work-places have been regularly visited by Mr. Yorke and myself during the year, and we found that all the requirements of the Factories and Workshops Act and Public Health Act had been carried out. Under the Factories and Workshops Act we have in this district 20 boot factories, 7 workshops and 5 bakeries. Section 22 of the Public Health Acts has been adopted here and a standard of efficiency and suitability of sanitary accommodation has been fixed and enforced.

Lists of Outworkers (Sec. 107) have been received during the year once or twice from most of the factories, namely, 2 twice a year and 11 once a year, with 116 and 358 names and addresses of outworkers respectively. Although the outworkers are few now when compared with former years before the factory system became the rule yet there again seems to be a revival of the home-work, and I see more of it in the dwelling-houses than there has been for some years past. At the same time it is a fact that many of the home-workers whose addresses are given on the list work for two factories, and sometimes three, so that the numbers on the list may in the aggregate be a little exaggerated.

Systematic inspections have been made of the whole district, but no action has had to be taken for enforcement of any nuisance injurious to public health.

I have to thank Mr. L. G. H. Lee, F. R. Met. Soc., for his report on the Meteorological conditions existing during the year in the District, which shows a rainfall above the average, and also a very high temperature in August, when it reached the very unusual heat of 93.2 in the shade and 128.5 in the sun on the 31st of the month.

SEWER.—The Sewers throughout their whole course have been regularly flushed and kept clean. Manholes have been hermetically sealed and additional ventilators placed wherever necessary, so that any bad smells emanating from the manholes have been entirely removed. The sewage is treated first by tank treatment, and then by broad irrigation on the sewage farm, which as I said before had been extended by the addition of two acres laid out in 1905, and as further improvements are likely to take place very soon, probably during the present year, it will be quite unnecessary for me to go into the matter more fully in this Report, further than to say that a very short time ago, Dr. Paget, the County Medical Officer of Health, came down and made a careful survey of the farm and its surroundings, and reported to the Council upon the matter, suggesting what he considers would be the most efficacious mode of improvement.

WATER SUPPLY.—Since my last report the sinking of the trial well has been continued to a depth of about 140ft. which was well into the Middle Lias. It was found necessary to obtain an additional loan to complete the sinking, the work being difficult owing to the fact that the water tapped at 105 feet and 116 feet respectively rose to the top of the well. In addition the great quantity of water met with in the alluvial gravel had to be cut off.

Before sanctioning an additional loan the Local Government Board sent down MEADE KING, Esq., M. I. C. E., one of their Inspectors, to meet Mr. Thos. Yorke, the Council's Engineer, to investigate.

Fortunately the sinking had been carried down to a sufficient depth to prove the Middle Lias a few days before the Local Government Board Inspector visited the works, and it was found that the supply from this source was insufficient for the present and prospective requirements of the town. This was pointed out to the Inspector by the Engineer.

The Engineer also pointed out that he had tapped a splendid supply of water in the alluvial gravel sufficient to supply the town for many years to come, the repeated analysis of which, taken under varying conditions and extending over a long period, had proved the water to be of excellent purity. Seeing therefore that the quantity of water from the Marlstone was insufficient, he would ask permission to use this top water.

He further pointed out that he had made trial borings on to the gravel in a line from the site of the well to the river, and other borings at right angles to that line, which proved that the gravel was covered with two beds of impervious clay, which continued from the river under the brook to the site of the well. The borings on either side of the brook shewed these impervious beds to be 13ft. 6in. in depth before reaching the gravel.

The Inspector requested the Engineer to forward him two Sections shewing the strata from the river to the site of the well, copies of the analysis of the said water and other particulars, and he would lay the matter before the Board. In addition to supplying these particulars the Engineer also sent samples of the two beds of clay.

After having made these investigations and being satisfied that the water was fit for the town's supply, a formal sanction was given by the Local Government Board for its use.

Since then a scheme has been prepared by the Council's Engineer for pumping, storing, and distributing water, which scheme has been considered by the Council, and an application made to the Local Government Board for a loan of £8500 for the carrying out of the work, and the forms, etc., for detailed particulars, are in the hands of the Engineer who hopes to be able to send them in within the next week or so.

In conclusion it might be stated that it is proposed to pump the water into a storage Reservoir to be constructed on land situate off Hargrave Road some 200 yards on the east side of the "Red House." The altitude of the reservoir is such as to give a good supply to the top floors of the highest buildings within

the district as well as for fire purposes. It is hoped that a commencement of the Scheme will be made early in the summer.

The Sanitary Work of the District has been excellently carried out by Mr. Yorke, who mentions among other items the following :—“ The bakehouses, slaughter-houses and milk shops have been periodically inspected and found to be well kept except the following : one person was found to be keeping a dairy and selling milk without being registered by the Council, and the place used as a dairy was found to be totally unfit for the purpose. This case is in hand at the present time. The drainage to one dairy was found to be defective, and the cowsheds without proper and sufficient drainage. This case is also in hand at the present time. The remainder of the dairies and cow-sheds have been well kept.

The sewers have been periodically flushed, and no complaints have been received this year with respect to bad smells emanating from them.

The notices served for the abatement of nuisances have been considerably less this year owing to the improved sanitary condition of the District. Twenty-three notices have been served in all, and these called for the abatement of nuisances caused through defective drains, closets, urinals, pigs kept too near dwellings, insufficient space in workshops, non-provision of sanitary conveniences for both sexes, dwelling-houses in an unsanitary condition, and defective ash-pits.

A considerable number of less important sanitary defects have been remedied without the necessity of serving notices. Eighteen houses have been connected to the common sewer during the year—practically the whole of the houses within the District have been connected—only a few remaining unconnected, and the Council are at present dealing with them.

Taken altogether the sanitary condition of the District is better than ever it has been before. The streets and roads, as well as the pavements and footpaths, are cleaner and better kept, and very few insanitary dwellings are now to be seen.

The health of the District has been very good during the year, and although the death-rate is slightly higher than last year, still it is very low compared with other towns of the same size.

I have to thank your Inspector of Nuisances for the help he has given me in carrying out my work during the year.

I am, Gentlemen,

Yours obediently,

W. MACKENZIE, L.R.C.S.,

Med. Off. of Health R.U.D.C.

CERTIFICATE OF WATER ANALYSIS.

The following is one of the Reports of the Analysis of the water from the trial well, which is about to be used as a Water Supply for Raunds. The other Reports were almost identical.

Sample received from Raunds Urban District Council.

<i>The Sample contained—</i>					<i>Grains per Gallon.</i>
Total solid matter...	...	...	...	...	22.00
Chlorides	...	...	...	...	1.30
Equal to Chloride of Sodium (Common Salt)					2.14
Nitrates (Expressed as Nitrogen)	...	...	...	...	.10
Ammonia (Free)	...	...	...	...	.0035
„ (Albuminoid)	...	...	...	...	.0007
Oxygen absorbed by organic matter in 15 minutes					
at 140 degrees F.	...	..	...	...	.0168
Appearance in 2 foot Tube—clear, pale blue					
Smell when heated to 100 degs. F.—none					
Metals—none					

Microscopic Examination—no deposit

REMARKS—Total solid matter, Chlorides and Nitrates are low and quite satisfactory.

Free and Albuminoid Ammonia and Oxygen absorbed are all very low and show the absence of organic matter.

I consider the water is unpolluted and fit for drinking purposes.

J. WEST KNIGHTS,

Public Analyst

Sep. 13, 1904.

Deaths in Raunds Urban District during the year 1906.

CAUSES OF DEATH.	All ages	Under 1 year	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards.
Whooping-cough	1	....	....	1			1
Diphtheria and membranous croup	1	....	....	1			
Croup	1	....	1				
Phthisis (Pulmonary Tuberculosis)	4	....	....	....	1	2	1
Other tubercular diseases	4	1	1	1	....	....	1
Cancer, malignant disease	2	....	....	....	....	2	
Bronchitis	8	3	1	1	....	....	3
Pneumonia	1	....	1				
Alcoholism	2	....	....	....	....	1	1
Cirrhosis of liver	2	....	....	....
Premature birth	4	4	....	1		3	
Heart diseases	4	....	....		....
Accidents	1	....	1				
Suicides	1	....	....	....	....	1	
All other causes	8	....	....	....	1	4	3
All causes	42	8	5	5	2	13	9

Infantile Mortality during the year 1906.

CAUSE OF DEATH.	Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	Total under 1 month	1-2 months	2-3 months	3-4 months	4-5 months	5-6 months	6-7 months	7-8 months	8-9 months	9-10 months	10-11 months	11-12 months	Total Deaths under 1 year
All causes certified	2	...	...	1	3	...	...	1	...	2	...	...	...	...	1	1	8
Premature birth....	2	...	...	...	...	...	...	1	...	1	...	...	...	...	...	...
Other tubercular diseases....	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	1	
Bronchitis	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...
	2	...	...	1	...	...	...	1	...	2	...	...	...	...	1	1	8

Deaths from all causes at all ages 42.

Estimated Population, 1906, 4381.

Vital Statistics of whole District during 1906 and previous years.

Year	Population estimated to middle of each year	Births		Total Deaths Registered in the District.					Deaths of Non-Residents registered in Public Institutions in the District	Deaths of Residents registered in Public Institutions beyond the District	Nett Deaths at all ages belonging to the District	
		Number	Rate	Under 1 year of age		At all ages		Rate				
				Number	Rate per 1000 Births registered	Number	Rate					
1	2	3	4	5	6	7	8	9	10	11	12	13
1898	3811	115	28.05	15	130.04	45	11.81		1	1	45	11.81
1899	3811	109	25.58	11	99	38	9.97		2	2	38	9.97
1900	3811	123	28.12	10	81.3	42	11.02		1	1	42	11.02
1901	3901	118	30.25	7	59.32	44	11.28		0	4	48	12.3
1902	4031	115	28.59	12	104.34	48	11.9		3	3	48	11.9
1903	4211	109	25.88	14	128.4	45	10.69		0	0	45	10.69
1904	4376	109	24.9	13	119.3	47	10.7		1	1	47	10.7
1905	4381	101	23.05	10	99.01	36	8.2		0	0	36	8.2
1906	4381	103	23.5	8	77.6	42	9.5		0	0	42	9.5

Rates in columns 4, 8 and 13, calculated per 1000 of estimated population.

Total population at all ages	....	3811	At Census	Area of District in acres, 4387.
Number of inhabited houses	....	833	{ of 1901.	
Average number of persons per house	4.5			Estimated population 1906, 4381.

Cases of Infectious Diseases notified during the year 1906.

NOTIFIABLE DISEASE.	At all ages	At Ages—Years				
		Under 1	1 to 5	5 to 15	15 to 25	25 to 65
Small-pox	0					
Cholera	0					
Diphtheria	1	....	....	1		
Membranous croup	0					
Erysipelas	0					
Scarlet Fever	7	....	3	4		
Typhus fever	0					
Enteric fever	5	....	1	3	....	1
Relapsing fever	0					
Continued fever	0					
Puerperal fever	0					
Plague	0					
TOTALS	13	....	4	8	....	1

Isolation Hospital : Raunds Isolation Hospital in Raunds Urban District.

Annual Report of the Medical Officer of Health for 1906 for the Urban District of Raunds.

Factories, Workshops, Laundries, Workplaces & Homework

1.—INSPECTIONS.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises	Number of		
	Inspections	Written Notices	Prosecutions
Factories (including Factory Laundries)	40	0	0
Workshops (including Workshop Laundries)	18	3	0
Workplaces	0	0	0
TOTALS	58	3	0

2.—DEFECTS FOUND.

Particulars	Number of defects			Number of Prosecutions
	Found	Remedied	Referred to H.M. Inspector	
<i>Nuisances under the Public Health Acts—</i>				
Want of cleanliness	0	0	0	0
Want of ventilation	0	0	0	0
Overcrowding	2	2	0	0
Want of drainage of floors	0	0	0	0
Other nuisances	0	0	0	0
*Sanitary Accomodation {	insufficient	0	0	0
	unsuitable or defective... ..	1	1	0
	not separate for sexes	0	0	0
<i>Offences under the Factory & Workshops Act—</i>				
Illegal occupation of underground bakehouses	0	0	0	0
Breach of special sanitary requirements for bakehouses... ..	0	0	0	0
Other offences	0	0	0	0
TOTAL	3	3	0	0

*Section 22 has been adopted : Standard—20 for males, 16 for females.

3.—HOME-WORK.

NATURE OF WORK	OUTWORKERS' LISTS, SECTION 107.							OUTWORK IN UNWHOLE-SOME PREMISES Section 108.			
	Lists received from Employers.		Number of Addresses of Out-workers received from other Councils		Number of Addresses of Out-workers forwarded to other Councils		Prosecutions		Number of Inspections of Outworkers premises	Instances	Notices served
	Lists	Out-workers	Lists	Out-workers	Failure to keep or permit inspection of lists	Failing to send lists					
Wearing Apparel— Making, &c.	2	116	11	358	none	49	1	1	181	2	2

4.—REGISTERED WORKSHOPS.

Workshope on Register (s. 131) at the end of the year.	Number	
Basket maker....	1
Currier	2
Tailor	1
Cabinet maker	1
Boot and shoe work	3
Total number of workshops on Register	8

5.—OTHER MATTERS.

Class	Class
Matters notified to H.M. Inspector of Factories— Failure to affix Abstract of Factory and Workshop Act (s. 133)	0
Action taken in matters referred by H M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5)— Notified by H.M. Inspector	1
Reports (of action taken) sent to H.M. Inspector	2
Other	0
Underground Bakehouses (s. 101) :— Certificates granted during the year	0
In use at the end of the year	0

RAINFALL AND TEMPERATURE.

At Raunds Climatological Station under the Royal
Meteorological Society.

RAINFALL IN INCHES.

		1906		Average
January	...	3.57	...	1.90
February	...	1.53	...	1.94
March	...	1.58	...	1.73
April	...	.51	...	1.91
May	...	1.57	...	2.03
June	...	4.49	...	1.96
July	...	.63	...	3.31
August	...	1.33	...	2.01
September	...	.99	...	2.54
October	...	3.61	...	2.39
November	...	4.11	...	2.09
December	...	2.63	...	1.99
Total	...	26.55	...	25.80

1903	...	...	30.31 inches
1904	...	...	19.22 inches
1905	...	..	18.31 inches

The Rainfall is thus .75 inches above the average. This is equivalent to an extra fall of 84,000,000 gallons on the Parish of Raunds only.

TEMPERATURE.

Maximum in the shade 93.2 degrees on August 31

Maximum in the sun 126.5 degrees on August 31

Minimum in the shade 15.9 degrees on Dec. 27

Mean Temperature for the year, 49.5 (approx.)

Frost Registered on 85 nights

Shade Temperature of over 80 degrees on 13 days.

LEON. G. HAROLD LEE, F.R.Met.S., A.C.P., etc.

Jan. 4, 1907.